

VoIP Solutions

Before the Federal Communications Commission
GN Docket No 11-117/PSNo 07-114/WC No 05-196
In the Matter of

Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission Rules

Wireless E911 Location Accuracy Requirements

And

E911 Requirements for IP Enabled Service Providers

Comments of

VoIP Solutions Inc

VoIP Solutions respectfully submits the following comments to the Federal Communications Commission in response to Second Further Notice of Proposed Rulemaking and Notice of Proposed rulemaking adopted by the Commission on July 12, 2011.

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VoIP Solutions

Introduction

This submission suggests a methodology for the Commission to consider on how to make improvements to the following 9-1-1 services

- VoIP
- Indoor Cellular
- WiFi

This methodology outlines an ISP based technology that would provide significant benefits for 9-1-1 and the Commission:

1. Technical solution and methodology that
 - a. Functionally and technically proven
 - b. Automatic and doesn't rely upon consumer provided data
2. Provides for a manageable and regulated solution
 - a. Modelled after PSTN 9-1-1 system that is familiar to all stakeholders
3. Business model that will provide a long term sustainable business for 9-1-1
4. ISP and VoIP supplier agnostic
5. Protects and extends lifespan and investment in existing 9-1-1 infrastructure
6. Legacy and NG 9-1-1 capable. This provides for a short, medium and long term upgrade to system 9-1-1.

A. The Commission should extend its E9-1-1 rules to cover VoIP services that permit consumers to terminate calls on the PSTN

VoIP services continue to grow at a rapid rate and come with many different feature sets that are often aggressively marketed by a wide variety of companies. These companies may or may not make consumers aware of their product 9-1-1 limitations and as such consumers may be at risk. Additionally, the subscriber may be aware of limitations but others may have access or need to dial 9-1-1 from that service and wouldn't be aware, again putting people at significant risk. These services in many instances are available with many features at a low price and are often targeted at replacing POTS (Plain Old Telephone Service); without a reliable E9-1-1 alternative, consumers may be at risk. This is an issue for both facilities based and non-facilities based (such as Over The Top or OTT) suppliers. Many facilities based providers, such as with most fibre services, have systems whereby the end "IP telephone" device can be moved and still function, thereby rendering 9-1-1 information inaccurate.

VoIP Service Providers (VSP) that provide an inbound and outbound service that actually separate the two services (this may or may not be known to consumer) can in many cases mislead consumers. Bifurcation can provide a false sense of security and the dangers may not become known until E9-1-1 services are required. If a VSP enables a consumer to connect to the PSTN, regardless if they can receive calls or not, they should be required to provide Enhanced 9-1-1. By not requiring those to do so will put consumers at risk.

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Additionally, the Commission should look at an ISP based solution; one of the major challenges with the VoIP 911 issue is that it is impossible to manage or regulate companies that do not exist within legal and regulatory boundaries. It is also impossible to accurately identify what companies are providing VoIP services within the United States, so tracking and managing mandates are difficult at best. With an ISP based solution, legal and regulatory issues are significantly easier to manage and control and will model existing regulations in place for 911 on telephone lines that most ISP's are familiar.

B. *The Commission should adopt a generalized location accuracy framework for VoIP service.*

Enhanced 911 was originally deployed based upon the premise that the connection to the "network", usually a POTS line, was static and couldn't be moved; it also had a ten digit number assigned to it that could be associated to the Civic Address in a database. This worked well when the voice service was dependent upon fixed lines. With VoIP, this is no longer the case; the VSP can be independent of the network connection service provider (in this case the Internet Service Provider or ISP) and as such, a "VoIP number" cannot be accurately related to an address reliably. VSP's can be located anywhere in the world and as such can exist outside of legal and regulatory boundaries, making enforcement of any type of mandate a challenge at best, thereby rendering a system that is not functionally accurate or reliable and provides little management or control for the FCC or governments.

An ISP based solution (Appendix 1) makes sense in so many ways; it enables regulatory and legal control; provides Enhanced 9-1-1 for VoIP in safe fashion and at same service levels and E9-1-1 for POTS; removes inbound vs. outbound VoIP issues; is ISP and VSP agnostic, thereby working for benefit of all; is an upgrade for existing infrastructure thereby protecting this investment until NG 9-1-1 is finalized; is legacy 9-1-1 system capable as well as NG 9-1-1 compliant, thereby extending existing 9-1-1 infrastructure lifespan. This model therefore prevents the need for two separate 9-1-1 systems and transitions 9-1-1 smoothly from legacy through to NG 9-1-1.

C. *The Commission should encourage the adoption and evolution of location capable broadband technologies*

One of the main challenges in the 9-1-1 location arena is the cooperation and particularly the participation of all suppliers and vendors in this space. Many vendors are good 9-1-1 citizens and others are not; a perfect example of this is VSP's, many of whom do not even process 9-1-1 calls regardless of what regulations require of them. Location awareness on the "device" is feasible for mobile/cellular applications but not for many VoIP applications. Many VoIP applications are software on a variety of devices and/or the service is accessible from a variety of devices, therefore location awareness of the device is not possible or controllable. Perfect examples of this are Analogue Telephone Adaptors (ATA), Gaming Stations (ex PS2), flat screens monitors enabled with VoIP, iTouch devices, iPads and many more. An ISP based solution as outlined is service provider and device agnostic and tags the 9-1-1 call at the ISP access point and delivers the emergency call into the 9-1-1 system at the correct point and with the required information. This provides for a VoIP E9-1-1 solution as well as a WiFi E9-1-1 solution.

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It is important for the Commission to attempt to manage what it can manage; attempting to enforce regulations on suppliers that could not comply, even if they wished to do so, is a daunting challenge with limited opportunity for success. ISP's generally operate within the legal and regulatory boundaries of the FCC and as such are easier to mandate and control. Regulatory framework would be very similar to the existing PSTN E9-1-1 model that most ISP's already participate in, thereby making the transition easier and more accommodating for all 9-1-1 stakeholders.

D. *The Commission should initially require some generalized testing for indoor positioning performance.*

Indoor cellular location can be provided by an ISP type solution as outlined in Appendix 1. WiFi offloading is a rapidly growing strategy for carriers to efficiently manage their cellular networks. This ISP model will provide for an excellent symbiotic solution for Phase II by providing accurate civic AP data for cellular phones indoor in WiFi or UMA mode.

Summary and Conclusion

The telecom space continues to migrate to IP technologies at an accelerating pace. Change is happening at a faster pace than 9-1-1 managers and organizations are currently moving. An example of this is NENA's NG 9-1-1 model is described by NENA as a work in progress and is three to five years from being technically complete. NG 9-1-1 does not currently provide for an accurate and automatic Civic Address capability. PSAP statistics clearly indicate an alarming trend in growing Call Processing Times (CPT) for 9-1-1 operators due to lack of required information, more specifically ALI or address information, with an increasing number of calls. The main cause behind this is lack of accurate information is due to wireless, WiFi and VoIP. Increases in CPT extend response times beyond industry standards (thereby increasing consequences of emergency) reducing 9-1-1 efficacy and availability and is also causing serious budgetary problems as increases in CPT for same number of calls requires more 9-1-1 operators. The question then becomes is can we wait three to five years for NG 9-1-1 when it doesn't address the issues being presented here? An ISP based 9-1-1 system as outlined will solve these issues today, during the transition to NG 9-1-1 and during NG9-1-1. This creates a workable, affordable solution that can be easily managed, regulated and controlled for the benefit of all Americans.

Appendix 1

FCC Call For Proposal 3877A1: Location Determination for VoIP

Background

Enhanced 9-1-1 is the priority routing of an emergency call to the correct PSAP and includes civic address and call back number, in the traditional PSTN 9-1-1 system this is done by linking the 10 digit telephone number of a telephone line, call ANI (Automatic Number Identifier) to a verified Civic Address or ALI (Automatic Location Identification). When a 9-1-1 call is placed, the telephone network recognizes the 9-1-1 call priority routes it to the area Selective Router which will then route the call to the correct PSAP. The ANI or 10 digit phone number will be sent to a database to retrieve the ALI or civic address so that the operator is able to dispatch the required first responder to the accurate address. This ANI ALI database look up may take place from the PSAP or before call gets to PSAP. From a modelling perspective the access point to the network is the telephone line; it doesn't move so its 10 digit number (ANI) can be associated accurately to its civic address (ALI) automatically. This system will enable a timely dispatch to the accurate location even if the caller is unable to speak, or doesn't know the address where they are currently.

Problem

VoIP is based upon packet data transmission over the internet. As such there isn't a physical "telephone line" linking caller to the network. When a 9-1-1 call is made the call may go to the VoIP service provider or VSP. They will be able to identify this as an emergency call, but will only have an address that is supplied from the account owner. This address may or may not be accurate and the caller must be able to confirm their precise address. If they are unable to do so, or if the address on record is incorrect (eg billing address), the first responders will be dispatched to a wrong address. In instances where the VSP and the Internet Service Provider (ISP) are the same, it is possible for the VoIP / ISP to associate the address (ALI) to the telephone (ANI) internally and pass the call along to the 9-1-1 system with required information. As proven by the tragedy in Florida in November of 2010, even this is not reliable. As such there is no reliable, accurate, automatic solution available.

Since the VSP receives the call and may or may not be located within the country of the calls origin, even if the caller can identify the civic address of the call, the operator may not know where that location is. Would a call operator in San Diego know where Salem Mass is? Or would a VSP operator in Belgium now where Clinton DC is? Even if they do know where the location is, how do they get the call from the location of the VoIP provider to the 9-1-1 system of the area the caller is located? If the call is within the US, this process SHOULD, work but generally results in call processing delays. If the call comes from out of country, what processes are in place to deliver the call to the correct PSAP? At best, these challenges will cause delays beyond accepted industry standards, with the most likely result being a call failure and NO first responders will be dispatched.

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From a regulatory perspective, how does the FCC deal with a company that exists outside of legal and regulatory boundaries? Inbound VoIP, outbound VoIP, Interconnected VoIP, Nomadic, Static, etc all complicate the issue and creates varied challenges for the FCC and loopholes for VSP's. By modelling an IP E9-1-1 system after the existing PSTN system most of these hurdles can be avoided; establish the 9-1-1 "magic" at the point of connection to the network – the internet connection. ISP's are deploying "intelligent edge devices" that are designed to run applications that can generate revenue streams for the ISP. This capability will run programs to identify when a 9-1-1 call is made and route it with required information to a server that can process the call and deliver it into the 9-1-1 system in the required format and with the required information.

Other Issues Affecting the Problem

VoIP services can be purchased from companies outside of the US. As such, they can exist outside of legal and regulatory boundaries and may ignore or not participate in regulatory mandates. Additionally, ISP's do not know what their clients are doing over their internet connections and as such; it cannot accurately be identified who is using VoIP and who isn't. Further complicating matters, many VoIP companies are unresponsive when it comes to 9-1-1 issues and may even block emergency number calls, Microsoft's Skype and their 700 Million + users are a perfect example. This complicates matters for the industry on many fronts: technically in finding a solution; from a regulatory perspective in trying to manage and control how industry operates and is managed and also financially. Billing and collection of 9-1-1 fees from companies outside of your country from companies you may not know operate within the US is challenging at best. As a result, any proposed solution reliant upon cooperation, communication and participation of VSP's will be severely challenged.

Overview of Proposed ISP Based Solution

Fundamentally, the proposed solution is based upon the same model that has worked for PSTN 9-1-1 for decades. The 9-1-1 "magic" happens at the access point to the network; in a VoIP environment this access point is the internet connection. Unless this is a wireless internet connection (which would use Wireless Phase 2 9-1-1 location) the connection doesn't move. Because the connection doesn't move it can be assigned a number (ANI) by the ISP that can be associated to the civic address (ALI) of the location. The ISP loads software on their edge device that can identify when an emergency call is initiated and registers the address with an ANI to the 9-1-1 database. When a 9-1-1 call is initiated, the edge software recognizes a call as been made and redirects it to a gateway server (Simplified version). The gateway server, in a legacy environment, would convert the IP call into a PSTN call and present it to the PSTN with an ANI that corresponds to the ALI for the address of the location of the call's origination. In an NG 9-1-1 environment the Gateway will deliver the required information in the required format to the NG 9-1-1 system when it is available (Example correct address to the LIS). An ISP based system as described would provide for a short medium and long term solution to the IP 9-1-1 challenge and also prevents the need for two separate operating 9-1-1 systems – legacy and NG 9-1-1, when the emergency number system is financially challenged operating ONE system.

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9-1-1 Stakeholder Benefits

The ISP based system described would provide for many advantages for 9-1-1 stakeholders:

1. **Consumers:** Will permit consumers to utilize communications service that best suits their personal needs and budget while still being protected by 9-1-1
2. **States and Municipalities:**
 - a. Provides technical solution that will maintain expected levels for efficacy for all communications (legacy and VoIP)
 - b. Public Safety standards will be maintained
 - c. Protects existing 9-1-1 infrastructure. With 9-1-1 funding tight, this methodology will extend lifespan of existing infrastructure and permit time for NG 9-1-1 to be fully developed
 - d. All existing processes and procedures for PSAP's dispatch etc all remain unchanged
 - e. Business model mirrors what many regions utilize for telephony: 9-1-1 fee per connection is charged, thereby easing adoption.
3. **ISP's**
 - a. Provide 9-1-1 public safety for their customers
 - b. Mitigate potential liability
 - c. Public relations benefits
 - d. Cost effective solution that is in step with their new carrier model (intelligent edge devices designed to operate applications that can provide revenue generating services)
 - e. Good corporate citizens
 - f. Completes service bundles
4. **FCC**
 - a. Provides a 9-1-1 solution the FCC has been seeking
 - b. Provides a solution that can be managed and regulated in a controlled fashion as ISP's exist within legal and regulatory boundaries.
 - c. Solutions processes are based upon existing model so all tasks required to operate this system are already familiar to ISP's
 - i. ANI registration
 - ii. 9-1-1 fee collection
 - iii. Deployment of software on edge devices
 - iv. PSAP procedures and dispatch

All 9-1-1 stakeholders' benefit and this upgrade can be accomplished with minimal change. Transition to NG 9-1-1 will cause significant change for 9-1-1 professionals. This solution, being legacy and NG 9-1-1 functional, will enable a smooth transition as policies and procedures will remain same. The net result is a short medium and long term solution that is effectively a software upgrade to existing 9-1-1 system to be IP compatible. This upgrade is then transitioned into the proposed NG 9-1-1 environment. This system is very user friendly to 9-1-1 professionals as it doesn't change existing protocols, thereby minimizing pushback and extra budgets for training.

Additionally, such a model makes call routing, PSAP identification and other critical elements much simpler. This mitigates challenges presented by out of county and out of state VSP's. It also simplifies the outbound interconnected, two-way interconnected VSP issues and provides a clear concise implementable model that enables 9-1-1 authorities to manage, control and regulate this essential Public Safety service.

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VoIP Solutions Opportunity APPENDIX 2

Problem: Telecommunications industry shift to Internet Protocol Telephone (IP telephony) has created a problem for 9-1-1 systems. The civic address of a 9-1-1 call is unknown, access to correct 9-1-1 call center (PSAP) is limited and often unknown. This places the 9-1-1 system in jeopardy and the public at risk. The CRTC and FCC passed regulation in 2006 requiring Enhanced 9-1-1 for VoIP. They have been unable to enforce this mandate as a tested, effective technology, has not been available until now.

Solution: VoIP Solutions **ELI** (Emergency Locator Informer) technology sits on an internet connection and identifies when a 9-1-1 call is made, redirects the call to the appropriate **ELI** server which then processes the call and delivers it into the 9-1-1 system in the format required. The PSAP or 9-1-1 call center will receive the 9-1-1 call in exactly the same format as they do today over a telephone line. By processing the emergency calls in this fashion, all existing 9-1-1 protocols and infrastructure will continue to be utilized and the investments made are protected.

E9-1-1 ELI Opportunity Overview: The current E9-1-1 system relies on two events to successfully respond to a 9-1-1 call: 9-1-1 call routing to the correct 9-1-1 response (PSAP) center; and identification of correct civic address. This, by definition, is Enhanced 9-1-1 or E9-1-1. Without the correct civic address, there is no way to dispatch the first responders! With the growing transition to VoIP, our current 9-1-1 system's reliability is at stake since VoIP telephony technology cannot provide the aforementioned information. To solve this problem, VoIP Solutions (VoIPS) created the **ELI** technology that provides a seamless transition from traditional to IP telephony for 9-1-1 systems. **ELI** benefits all 9-1-1 stakeholders (consumers, regulators, carriers and Provinces/States/Countries) and is a tested, implementable solution that works today and links seamlessly into the future with Next Generation 9-1-1.

The **ELI Business Model:** VoIPS will license the **ELI** technology to ISP's (Internet Service Providers) who will purchase the technology, install it on all their internet connections, and charge a mandated monthly 9-1-1 fee to end users as is done for 9-1-1 on telephone lines today. A 9-1-1 fee per IP connection provides a long term monthly recurring revenue for VoIP Solutions and all 911 stakeholders. This ensures a long term, sustainable funding model for 9-1-1 systems.

Current Status: VoIP Solutions has US & Canadian Patent Pending status and has filed an International PCT application. Compliancy testing with Bell Canada's existing 9-1-1 infrastructure was successfully completed in early June 2009, proving our technology works and is compatible with existing 9-1-1 architecture in North America. Our live lab in New Jersey has been completed and allows for a demonstration of ELI working on a live 9-1-1 call through the State of New Jersey's 9-1-1 system. Discussions are ongoing with the major Canadian Carriers, Provincial Governments, CRTC and the Federal Government to deploy this technology in Canada. Similar discussions are taking place in the US with New Jersey and with the European Union Emergency Number Association. With the rapid transition to VoIP, WiFi enabled devices, cellular offload strategies and more, the need to commence deployment of **ELI** is now.

Summary: VoIP technology and high speed internet access is growing rapidly globally. The need for VoIP Solutions' **ELI** technology has been clearly identified, as well as mandated by regulators and currently has no known competitor. VoIP Solutions' has assembled a team experienced in the provisioning of E9-1-1 solutions with a vision and technology that solves the problem. **ELI** satisfies all 9-1-1 stakeholder needs and provides for long term sustainability of 9-1-1 systems everywhere. The intellectual property has been protected, the technology successfully tested and we have commenced the commercialization phase of our development. We have created a technology with a global need that can be deployed on large scale networks. This provides for significant stakeholder and shareholder value.

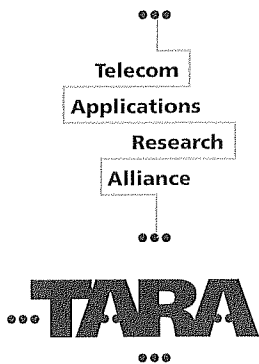
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VoIP Solutions Opportunity APPENDIX 3

The following 15 pages are the Test Results and are third party documents.

This Appendix is intended to for part of VoIP Solutions submission to FCC 3877A1 November 2011.

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June 11, 2009

To whom it may concern

Subject: Bell Aliant 911 Work bench testing carried out on June 10, 2009

Participants:

Bell Aliant: Janet Nickerson
Thomas (Tim) Armstrong

VoIP Solutions:
Peter Woodford
Peter Landry
Gil Richards

TARA:
Terry Hallett

Overview:

VoIP Solutions (VoIPS) is a Canadian company specializing in Enhanced 9-1-1 solutions (E911) for VoIP telephony.

A unique technology has been developed that addresses the issue of locating VoIP telephone users who place emergency calls. Patents have been applied for within the United States, where the application could be considered as "patent pending", and also in other countries.

...

Signed by: Terry Hallett, P.Eng., Director, Research and Technology

Within North America, emergency telephone calls are placed by dialing the sequence “9 1 1” (the Emergency Services Notification or ESN number). Telephone users expect this sequence to put them in contact with a local emergency center on a priority basis regardless of which particular telephone technology they are using. Other jurisdictions around the world may use different ESN sequences such as 112 or 999, but in each case the purpose of the emergency telephone service is to call for appropriate help as quickly as possible.

Essentially, traditional circuit switched telephone technology is based on a pair of wires that terminate at each user's premise. This permits a one-to-one correspondence of telephone circuit with the physical address of the caller (the “Civic Address”) via use of a unique directory number (DN). In a traditional telephone system, it is relatively simple to sense the ESN dial string, re-direct the call through a priority sub-network, look up the DN associated with the pair of wires on which the string was received, fetch the Civic Address from an associative database and report it to a Public Service Answering Position (PSAP) in the appropriate emergency center. This is the essence of E911 service as implemented around the world currently.

Voice-over-Internet-Protocol (VoIP) telephony is different; it is not circuit based. It works by implementing a packet addressing scheme wherein the user's speech is digitized, addressed and sent via a “cloud-type” network interface which forwards the voice and other information towards its final destination based on its IP address.

While this technology can dramatically improve efficiency and add valuable features, the old E911 paradigm that relates a continuous pair of wires to a physical Civic Address no longer applies.

VoIP Solutions 911 Laboratory at TARA

VoIP Solutions as a member of TARA has built a 911 laboratory in conjunction with TARA's DMS 100 (diagram attached). The lab equipment configuration consists of:

- A complete 911 Operator Call position, provided by KML technologies, identical to all PSAP Call answer positions in THE Province of Nova Scotia
- A VoIP Phone and service provider server (Asterisk)
- An ELI Server and gateway; the ELI device installed in-line between the IP phone and the Internet.
- TARA DMS for lab purposes set up to route calls from a ISDN Primary Rate Interface (PRI) attached to the Asterisk server to standard IBN Centrex phone line connected to the 911 Operator position.

...



Signed by: Terry Hallett, P.Eng., Director, Research and Technology

...
TARA
...

During Bell Aliant Compliancy tests, TARA's DMS was bypassed and the ELI server was connected directly to Bell Aliant's Bishop Telephone Switching Centre via an ISDN PRI and calls were routed to Bell Aliant personnel who were manning their KML PSAP Test Bench facility.

Test Scenarios

The following Compliancy Test Scenarios were designed and monitored by Tim Armstrong of Bell Aliant:

1. 911 dialled call routed to Test Bed and successful transfer to an ESP. Agent can drop out with Calling party and ESP still connected.
2. Search for E911212 log and E911201 (translation or trunk fault, default call progression enabled) after Agent disconnects.
3. 911 dialled call and disconnect before Agent answer. Call should stop ringing at PSAP within 6 - 8 rings (30 seconds after disconnect) Search for E911212 Call Log with asterixes.
4. 911 dialled call and disconnect before Agent answer. Agent goes off hook before ringing stops (within 30 seconds of disconnect) and attempts to hold call. Agent attempts Ringback Hold & Ringback likely will not work due to PRI being unable to support the functionality. Calling Party goes off-hook to verify line is open and available and not held to Agent. Search for E911212 log after Agent disconnects.
5. With one call up and active, originate a second 911 call. Search for E911212 Call Logs after both Agents disconnect.
6. Two lines go off hook and dial 9-1-1 simultaneously. Agent should have 2 incoming calls. Answer both and ensure the ALI data corresponds with the call held at that position. Search for E911212 Call Logs after Agents disconnect.

Call logs referenced and screen prints from Bell Aliant Test Bench attached.

Results and Conclusions:

All tests were conducted successfully as per the parameters set forth by Aliant.

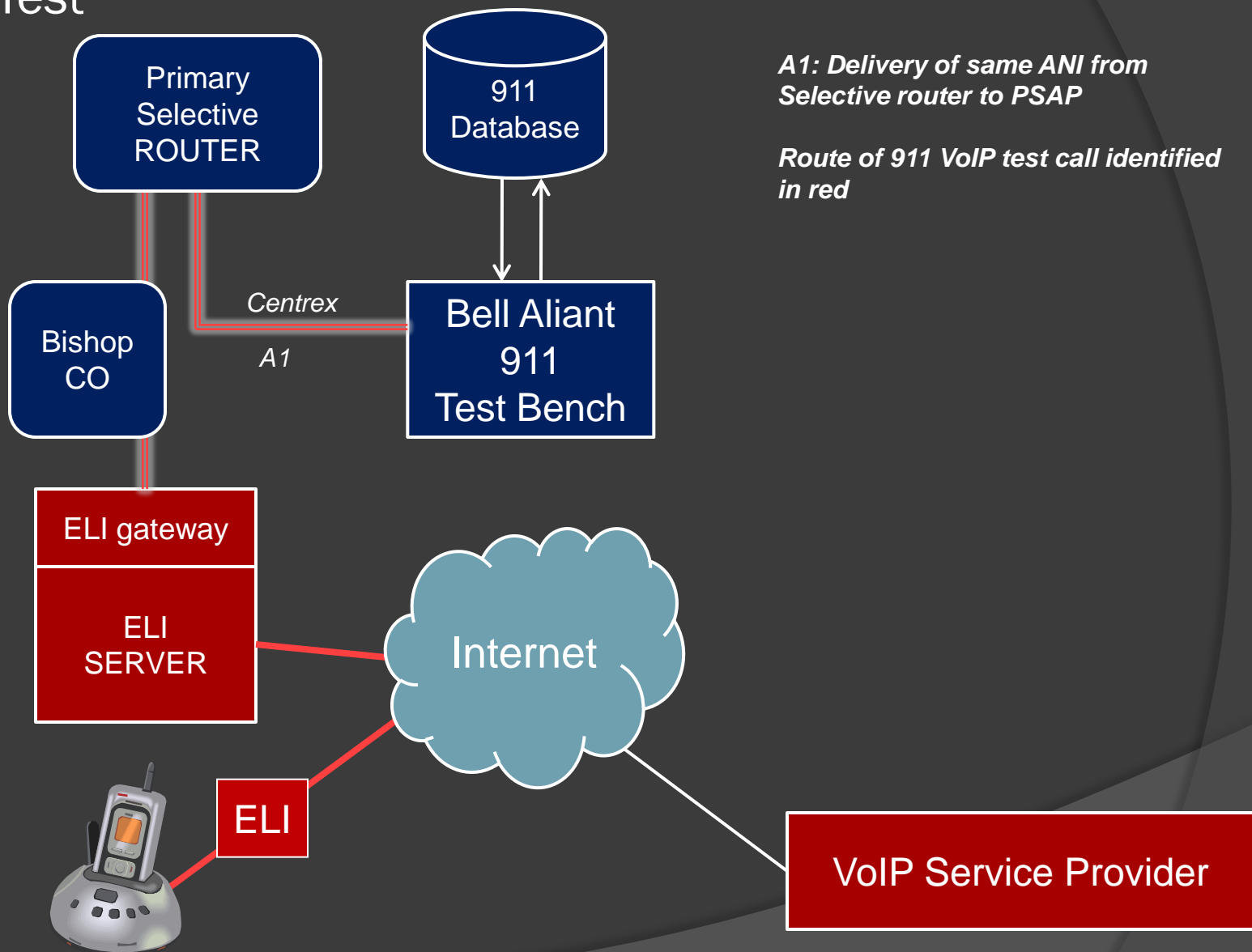
The ELI system performed as expected by redirecting a 911 VoIP call to the ELI server, which in turn converted the call to a PSTN 911 call and presented a 10 digit ANI as prescribed for a given location. This ANI was delivered over a PRI to the Bishop CO. The ANI information was routed to a Selective Router which routed the test calls in an identical manner as a normal E911 call.

The test calls for all scenarios were successfully completed to the ESP test position and the appropriate address information was presented to the Test Bench Operator as per normal 911 protocols as indicated in their E911 call logs.







Signed by: Terry Hallett, P.Eng., Director, Research and Technology












VoIP Solutions E911 Routing Solutions for Bell Aliant 911 Work Bench Test



KML Technology, Inc. SmartDMS © Copyright 1998-2008 All Rights Reserved

Tools  JN1-1  ALI  Controls  Phone  TTY  Record

Tools  First  Last  Back  Next  Search  History  RevALI  Queue  MSAG

***CTX* : CONFIRM ADDRESS CTX**
902-487-8745 09Jun-10 11:12:34
ALiant TEST SACKVILLE ST
005562
TEST SACKVILLE ST
U/F
HALIFAX HFX
TESTING# TARA BLDG

PSAP: TRURO TEST	ESN:3010
TRURO POLICE	486-7895
TRURO FIRE	486-7896
BARTLETTSMB	486-7897
POISONCONTROL	486-7897

M8089 ALIANT

Premise Notes







ANI: 9024878745 [10.90.1.20]

test. 1












SmartDMS

KML Technology, Inc. SmartDMS © Copyright 1998-2008 All Rights Reserved

Tools      

JN2-2 ALI Controls Phone TTY Record

Tools         

First Last Back Next Search History RevALI Queue MSAG

***CTX* : CONFIRM ADDRESS CTX**
902-487-8748 09Jun-10 11:17:18
ALIANT TEST SACKVILLE ST
005562
TEST SACKVILLE ST
U/F
HALIFAX HFX
TESTING# TARA BLDG

PSAP: TRURO TEST ESN:3010
TRURO POLICE 486-7895
TRURO FIRE 486-7896
BARTLETTSAMB 486-7897
POISONCONTROL 486-7897
M8089 ALIANT



Premise Notes

ANI: 9024878748 (10.90.1.20)










test #2
transferred to Police test set
successfully



test #3. 2 calls simultaneously

 **ALI Screen** 

Tools



First Last Back Next Search History RevALI Queue MSAG

***CTX* : CONFIRM ADDRESS CTX**
902-487-8745 09Jun-10 11:41:24
ALANT TEST SACKVILLE ST
005562
TEST SACKVILLE ST
U/F
HALIFAX HFX
TESTING# TARA BLDG







PSAP: TRURO TEST	ESN:3010
TRURO POLICE	486-7895
TRURO FIRE	486-7896
BARTLETTSAMB	486-7897
POISONCONTROL	486-7897

M8089 ALIANT

Premise Notes










ANI: 9024878745 [10.90.1.20]

test #4.

Tools      

JN2-2 ALI Controls Phone TTY Record

ALI Screen

Tools         

First Last Back Next Search History RevALI Queue MSAG

***CTX* : CONFIRM ADDRESS CTX**
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ALIANT TEST SACKVILLE ST
005562
TEST SACKVILLE ST
U/F
HALIFAX HFX
TESTING# TARA BLDG

PSAP: TRURO TEST ESN:3010
TRURO POLICE 486-7895
TRURO FIRE 486-7896
BARTLETTSAMB 486-7897
POISONCONTROL 486-7897

M8089 ALIANT

Premise Notes

ANI: 9024878748 [10.90.1.20]

test 4



Tools JN1-1 ALI Controls Phone TTY Record

ALI Screen

Tools First Last Back Next Search History RevALI Queue MSAG

***CTX* : CONFIRM ADDRESS CTX**
902-487-8748 09Jun-10 11:47:59
ALANT TEST SACKVILLE ST
005562
TEST SACKVILLE ST
U/F
HALIFAX HFX
TESTING# TARA BLDG

PSAP: TRURO TEST	ESN:3010
TRURO POLICE	486-7895
TRURO FIRE	486-7896
BARTLETTSAMB	486-7897
POISONCONTROL	486-7897

M8089 ALIANT

Premise Notes

ANI: 9024878748 [10.90.1.20]

test # 6-
Call ring once - hang up ALI
delivered.





Print



Reports

911

CLBK

Aban

MSG



Recycle

Flags

JN1
BUSYJN2
ReadyCall Back
On Hook

SEND

CONFERENCE

RING BACK

One Button Hot Keys

F1
PoliceF2
FireF3
MedicalF4
PoisonF5
TTMF6
JRCCF7
RedunF8
NonEmF9
FrenchF10
LangLineF11
DNRF12
EMC NA

Ear Mic



9-1-1



Call Bk

Mute

Not Ready

Queue

Tools

Phn

1

Pad

The two initial baseline calls the top log shows the ESP Transfer to TEST_POL:

```
FCTN  E911212 JUN10 11:22:40 5340 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
      9024878748 NSE911TEST  09549 09067 11:17:15 11:17:22 11:21:35 11:22
:40 9024867895 TEST_POL    11:21:38
      pANI    LAT DEG    LONG DEG
      N/A      N/A      N/A
```

```
FCTN  E911212 JUN10 11:22:55 5345 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
      9024878745 NSE911TEST  07342 09024 11:12:30 11:12:40 NO XFR  11:22
:55
      pANI    LAT DEG    LONG DEG
      N/A      N/A      N/A
```

The overflowed call when we had a miscue on the setup:

```
FCTN  E911212 JUN10 11:25:15 5419 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
      9024878748 HRMPSAPI    07270 01982 11:24:10 11:24:42 NO XFR  11:25
:15
      pANI    LAT DEG    LONG DEG
      N/A      N/A      N/A
```

The other simultaneous call with the overflowed call:

```
FCTN  E911212 JUN10 11:25:29 5429 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
      9024878748 NSE911TEST  07342 09024 11:24:10 11:24:20 NO XFR  11:25
:29
      pANI    LAT DEG    LONG DEG
      N/A      N/A      N/A
```

The two simultaneous calls after the ELI was set-up – 8748 first then 8745:

```
FCTN  E911212 JUN10 11:40:30 5895 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
      9024878745 NSE911TEST  07342 09024 11:36:12 11:36:19 NO XFR  11:40
:30
      pANI    LAT DEG    LONG DEG
      N/A      N/A      N/A
```

```
FCTN  E911212 JUN10 11:40:48 5906 INFO E911 CALL EVENT RECORD
      ANI    PSAPNAME      POSID LOGIN OFFER  ANSW  XFR  DISC
      XFR DN  XFR PSAPNAME  XFR ANSW
```

9024878748 NSE911TEST 09549 09067 11:36:10 11:36:14 NO XFR 11:40
:48

pANI	LAT DEG	LONG DEG
N/A	N/A	N/A

One call established followed by the second call:

FCTN E911212 JUN10 11:44:53 6029 INFO E911 CALL EVENT RECORD
ANI PSAPNAME POSID LOGIN OFFER ANSW XFR DISC
XFR DN XFR PSAPNAME XFR ANSW
9024878748 NSE911TEST 09549 09067 11:41:57 11:42:01 NO XFR 11:44

:52

pANI	LAT DEG	LONG DEG
N/A	N/A	N/A

FCTN E911212 JUN10 11:44:57 6033 INFO E911 CALL EVENT RECORD
ANI PSAPNAME POSID LOGIN OFFER ANSW XFR DISC
XFR DN XFR PSAPNAME XFR ANSW
9024878745 NSE911TEST 07342 09024 11:41:20 11:41:26 NO XFR 11:44

:56

pANI	LAT DEG	LONG DEG
N/A	N/A	N/A

Call disconnect before Agent answer and allowed to Time Out:

FCTN E911212 JUN10 11:45:50 6063 INFO E911 CALL EVENT RECORD
ANI PSAPNAME POSID LOGIN OFFER ANSW XFR DISC
XFR DN XFR PSAPNAME XFR ANSW
9024878745 NSE911TEST 07342 09024*11:45:19*NO ANSW *NO XFR

11:45

:49

pANI	LAT DEG	LONG DEG
N/A	N/A	N/A

Call disconnect then Agent answered before Time Out:

FCTN E911212 JUN10 11:50:37 6204 INFO E911 CALL EVENT RECORD
ANI PSAPNAME POSID LOGIN OFFER ANSW XFR DISC
XFR DN XFR PSAPNAME XFR ANSW
9024878748 NSE911TEST 07342 09024*11:47:56*11:48:01*NO XFR 11:50


:36

pANI	LAT DEG	LONG DEG
N/A	N/A	N/A

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	<p>Terry is a Professional Engineer and holds a Bachelor of Engineering from Carleton University in Ottawa and a Masters Degree in Business Administration from Saint Mary's University in Halifax.</p> <p>Prior to joining TARA, Terry was the Director of Network Services for the Nova Scotia Government where he was responsible for the operation of the government's telecommunication networks and the provincial Data Centre computer operations.</p> <p>Terry also has over 15 years experience with Northern Telecom (Nortel) in various telecommunications engineering and management roles. He has worked in Research, Systems Engineering, Marketing and Sales, and Management areas throughout his extensive career in Telecommunications.</p> <p>E-mail: thallett@tara.ca</p>